US ERA ARCHIVE DOCUMENT



10/19/2009 Mr. Doug Lam Trihydro Corporation 5000 State Route 128

Cleves OH 45002

Project Name: Hooven VI 2008-2009

Project #: 500-016-012 Workorder #: 0910195C

Dear Mr. Doug Lam

The following report includes the data for the above referenced project for sample(s) received on 10/7/2009 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Bryanna Langley Project Manager

Bujanna Lanefey

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630 (916) 985-1000 .FAX (916) 985-1020 Hours 6:30 A.M to 5:30 PST



DATE COMPLETED:

WORK ORDER #: 0910195C

Work Order Summary

CLIENT: Mr. Doug Lam BILL TO: Mr. Paul Michalski

Trihydro Corporation
5000 State Route 128
Cleves, OH 45002

Trihydro Corporation
5000 State Route 128
Cleves, OH 45002

PHONE: 513-353-1323 ext 23 **P.O.** # 08-050WO-L

10/19/2009

FAX: 513-353-4664 PROJECT # 500-016-012 Hooven VI 2008-2009

DATE RECEIVED: 10/07/2009 CONTACT: Bryanna Langley

			RECEIPT	FINAL
FRACTION #	<u>NAME</u>	<u>TEST</u>	VAC./PRES.	PRESSURE
01A	TB-1, 092909	Modified ASTM D-1946	28.0 "Hg	15 psi
02A	VW-130(20)-092909	Modified ASTM D-1946	4.6 "Hg	15 psi
03A	VW-130(15)-092909	Modified ASTM D-1946	3.4 "Hg	15 psi
04A	VW-130(10)-092909	Modified ASTM D-1946	4.2 "Hg	15 psi
05A	VW-130(5)-092909	Modified ASTM D-1946	4.4 "Hg	15 psi
06A	VW-130(40)-092909	Modified ASTM D-1946	7.4 "Hg	15 psi
07A	VW-128(50)-092909	Modified ASTM D-1946	3.6 "Hg	15 psi
08A	VW-128(40)-092909	Modified ASTM D-1946	3.6 "Hg	15 psi
09A	VW-128(30)-093009	Modified ASTM D-1946	3.6 "Hg	15 psi
10A	VW-128(20)-093009	Modified ASTM D-1946	2.4 "Hg	15 psi
11A	VW-139(5)-093009	Modified ASTM D-1946	2.8 "Hg	15 psi
11AA	VW-139(5)-093009 Lab Duplicate	Modified ASTM D-1946	2.8 "Hg	15 psi
12A	Lab Blank	Modified ASTM D-1946	NA	NA
12B	Lab Blank	Modified ASTM D-1946	NA	NA
13A	LCS	Modified ASTM D-1946	NA	NA

CERTIFIED BY:

Sinda d. Fruman

DATE: 10/19/09

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004 NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act, Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020



LABORATORY NARRATIVE Modified ASTM D-1946 Trihydro Corporation Workorder# 0910195C

Eleven 1 Liter Summa Canister (100% Certified) samples were received on October 07, 2009. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

Requirement	ASTM D-1946	ATL Modifications
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A 3-point calibration curve is performed. Quantitation is based on a daily calibration standard which may or may not resemble the composition of the associated samples.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a >/= 95% accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections > 5 X's the RL.



Receiving Notes

There were no receiving discrepancies.

Analytical Notes

The trip blank sample TB-1, 092909 has reportable level of oxygen present.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

- B Compound present in laboratory blank greater than reporting limit.
- J Estimated value.
- E Exceeds instrument calibration range.
- S Saturated peak.
- Q Exceeds quality control limits.
- U Compound analyzed for but not detected above the detection limit.
- M Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue



Summary of Detected Compounds NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: TB-1, 092909

Lab ID#: 0910195C-01A

	Rpt. Limit	Amount	
Compound	(%)	(%)	
Oxygen	0.10	0.16	
Nitrogen	0.10	100	

Client Sample ID: VW-130(20)-092909

Lab ID#: 0910195C-02A

	Rpt. Limit	Amount
Compound	(%)	(%)
Oxygen	0.24	16
Nitrogen	0.24	80
Carbon Dioxide	0.024	3.9

Client Sample ID: VW-130(15)-092909

Lab ID#: 0910195C-03A

	Rpt. Limit	Amount	
Compound	(%)	(%)	
Oxygen	0.23	15	
Nitrogen	0.23	80	
Carbon Dioxide	0.023	4.6	

Client Sample ID: VW-130(10)-092909

Lab ID#: 0910195C-04A

	Rpt. Limit	Amount	
Compound	(%)	(%)	
Oxygen	0.24	15	
Nitrogen	0.24	80	
Carbon Dioxide	0.024	4.6	

Client Sample ID: VW-130(5)-092909

Lab ID#: 0910195C-05A

	Rpt. Limit	Amount (%)	
Compound	(%)		
Oxygen	0.24	15	
Nitrogen	0.24	80	
Carbon Dioxide	0.024	4.5	



Summary of Detected Compounds NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VW-130(40)-092909

Lab ID#: 0910195C-06A

	Rpt. Limit	Amount (%)	
Compound	(%)		
Oxygen	0.27	15	
Nitrogen	0.27	82	
Carbon Dioxide	0.027	2.5	

Client Sample ID: VW-128(50)-092909

Lab ID#: 0910195C-07A

	Rpt. Limit	Amount	
Compound	(%)	(%)	
Oxygen	0.23	8.8	
Nitrogen	0.23	85	
Carbon Dioxide	0.023	6.2	

Client Sample ID: VW-128(40)-092909

Lab ID#: 0910195C-08A

	Rpt. Limit	Amount	
Compound	(%)	(%)	
Oxygen	0.23	12	
Nitrogen	0.23	83	
Carbon Dioxide	0.023	4.6	

Client Sample ID: VW-128(30)-093009

Lab ID#: 0910195C-09A

	Rpt. Limit	Amount (%)	
Compound	(%)		
Oxygen	0.23	15	
Nitrogen	0.23	82	
Carbon Dioxide	0.023	3.4	

Client Sample ID: VW-128(20)-093009

Lab ID#: 0910195C-10A

	Rpt. Limit	Amount
Compound	(%)	(%)
Oxygen	0.22	16
Nitrogen	0.22	82



Summary of Detected Compounds NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Client Sample ID: VW-128(20)-093009

Lab ID#: 0910195C-10A

Carbon Dioxide 0.022 1.8

Client Sample ID: VW-139(5)-093009

Lab ID#: 0910195C-11A

	Rpt. Limit	Amount	
Compound	(%)	(%)	
Oxygen	0.22	14	
Nitrogen	0.22	81	
Carbon Dioxide	0.022	4.8	

Client Sample ID: VW-139(5)-093009 Lab Duplicate

Lab ID#: 0910195C-11AA

	Rpt. Limit	Amount
Compound	(%)	(%)
Oxygen	0.22	14
Nitrogen	0.22	81
Carbon Dioxide	0.022	4.7



Client Sample ID: TB-1, 092909 Lab ID#: 0910195C-01A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name: Dil. Factor: Compound	9101704 1.00		llection: 9/29/09 alysis: 10/17/09 07:23 AM
		Rpt. Limit (%)	Amount (%)
Oxygen		0.10	0.16
Nitrogen		0.10	100
Carbon Monoxide		0.010	Not Detected
Methane		0.00010	Not Detected
Carbon Dioxide		0.010	Not Detected
Ethane		0.0010	Not Detected
Ethene		0.0010	Not Detected
Helium		0.050	Not Detected



Client Sample ID: VW-130(20)-092909 Lab ID#: 0910195C-02A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9101706	Date of Colle	Date of Collection: 9/29/09 12:59:00 PM	
Dil. Factor:	2.39	Date of Analysis: 10/17/09 08:06 AM		
		Rpt. Limit	Amount	
Compound		(%)	(%)	
Oxygen		0.24	16	
Nitrogen		0.24	80	
Carbon Monoxide		0.024	Not Detected	
Methane		0.00024	Not Detected	
Carbon Dioxide		0.024	3.9	
Ethane		0.0024	Not Detected	
Ethene		0.0024	Not Detected	
Helium		0.12	Not Detected	



Client Sample ID: VW-130(15)-092909 Lab ID#: 0910195C-03A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9101708	Date of Collection: 9/29/09 1:21:00 PM	
Dil. Factor:	2.28	Date of Analy	vsis: 10/17/09 08:49 AM
		Rpt. Limit	Amount
Compound		(%)	(%)
Oxygen		0.23	15
Nitrogen		0.23	80
Carbon Monoxide		0.023	Not Detected
Methane		0.00023	Not Detected
Carbon Dioxide		0.023	4.6
Ethane		0.0023	Not Detected
Ethene		0.0023	Not Detected
Helium		0.11	Not Detected



Client Sample ID: VW-130(10)-092909 Lab ID#: 0910195C-04A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9101707	Date of Colle	ction: 9/29/09 1:50:00 PM
Dil. Factor:	2.35	Date of Analysis: 10/17/09 08:27 AM	
		Rpt. Limit	Amount
Compound		(%)	(%)
Oxygen		0.24	15
Nitrogen		0.24	80
Carbon Monoxide		0.024	Not Detected
Methane		0.00024	Not Detected
Carbon Dioxide		0.024	4.6
Ethane		0.0024	Not Detected
Ethene		0.0024	Not Detected
Helium		0.12	Not Detected



Client Sample ID: VW-130(5)-092909 Lab ID#: 0910195C-05A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9101709	Date of Colle	ction: 9/29/09 2:40:00 PM
Dil. Factor:	2.37	Date of Analy	ysis: 10/17/09 09:10 AM
		Rpt. Limit	Amount
Compound		(%)	(%)
Oxygen		0.24	15
Nitrogen		0.24	80
Carbon Monoxide		0.024	Not Detected
Methane		0.00024	Not Detected
Carbon Dioxide		0.024	4.5
Ethane		0.0024	Not Detected
Ethene		0.0024	Not Detected
Helium		0.12	Not Detected



Client Sample ID: VW-130(40)-092909 Lab ID#: 0910195C-06A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9101710	Date of Colle	ction: 9/29/09 11:56:00 AM	
Dil. Factor:	2.68	Date of Analy	nalysis: 10/17/09 09:32 AM	
		Rpt. Limit	Amount	
Compound		(%)	(%)	
Oxygen		0.27	15	
Nitrogen		0.27	82	
Carbon Monoxide		0.027	Not Detected	
Methane		0.00027	Not Detected	
Carbon Dioxide		0.027	2.5	
Ethane		0.0027	Not Detected	
Ethene		0.0027	Not Detected	
Helium		0.13	Not Detected	



Client Sample ID: VW-128(50)-092909 Lab ID#: 0910195C-07A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name: Dil. Factor:	9101711 2.30		ection: 9/29/09 5:40:00 PM ysis: 10/17/09 09:54 AM
Compound		Rpt. Limit (%)	Amount (%)
Oxygen		0.23	8.8
Nitrogen		0.23	85
Carbon Monoxide		0.023	Not Detected
Methane		0.00023	Not Detected
Carbon Dioxide		0.023	6.2
Ethane		0.0023	Not Detected
Ethene		0.0023	Not Detected
Helium		0.12	Not Detected



Client Sample ID: VW-128(40)-092909 Lab ID#: 0910195C-08A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9101712	9101712 Date of Collection: 9/29/09 6:31:00 PM 2.30 Date of Analysis: 10/17/09 10:17 AM	
Dil. Factor:	2.30		
		Rpt. Limit	Amount
Compound		(%)	(%)
Oxygen		0.23	12
Nitrogen		0.23	83
Carbon Monoxide		0.023	Not Detected
Methane		0.00023	Not Detected
Carbon Dioxide		0.023	4.6
Ethane		0.0023	Not Detected
Ethene		0.0023	Not Detected
Helium		0.12	Not Detected

Helium



Client Sample ID: VW-128(30)-093009 Lab ID#: 0910195C-09A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9101713	Date of Colle	ction: 9/30/09 5:09:00 PM
Dil. Factor: Compound	2.30	Date of Analy	ysis: 10/17/09 10:39 AM
		Rpt. Limit (%)	Amount (%)
Oxygen		0.23	15
Nitrogen		0.23	82
Carbon Monoxide		0.023	Not Detected
Methane		0.00023	Not Detected
Carbon Dioxide		0.023	3.4
Ethane		0.0023	Not Detected
Ethene		0.0023	Not Detected

0.12

Not Detected

Helium



Client Sample ID: VW-128(20)-093009 Lab ID#: 0910195C-10A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9101714 2.20	Date of Collection: 9/30/09 6:03:00 PM Date of Analysis: 10/17/09 11:01 AM	
Dil. Factor:			
Compound		Rpt. Limit (%)	Amount (%)
Oxygen		0.22	16
Nitrogen		0.22	82
Carbon Monoxide		0.022	Not Detected
Methane		0.00022	Not Detected
Carbon Dioxide		0.022	1.8
Ethane		0.0022	Not Detected
Ethene		0.0022	Not Detected

0.11

Not Detected

Ethane

Ethene

Helium



Client Sample ID: VW-139(5)-093009 Lab ID#: 0910195C-11A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name: Dil. Factor:	9101715 2.23		ction: 9/30/09 2:30:00 PM ysis: 10/17/09 11:23 AM
Compound		Rpt. Limit (%)	Amount (%)
Oxygen		0.22	14
Nitrogen		0.22	81
Carbon Monoxide		0.022	Not Detected
Methane		0.00022	Not Detected
Carbon Dioxide		0.022	4.8

0.0022

0.0022

0.11

Not Detected

Not Detected

Not Detected

Helium



NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

Date of Collect	ction: 9/30/09 2:30:00 PM
Date of Analy	s: 10/17/09 11:44 AM
Rpt. Limit (%)	Amount (%)
0.22	14
0.22	81
0.022	Not Detected
0.00022	Not Detected
0.022	4.7
0.0022	Not Detected
0.0022	Not Detected
	Date of Analy Rpt. Limit (%) 0.22 0.22 0.022 0.0022 0.0022 0.0022

0.11

Not Detected



Client Sample ID: Lab Blank Lab ID#: 0910195C-12A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name: Dil. Factor:	9101703 1.00	Date of Collection: NA Date of Analysis: 10/17/09 12:12 AM	
Compound		Rpt. Limit (%)	Amount (%)
Oxygen		0.10	Not Detected
Nitrogen		0.10	Not Detected
Carbon Monoxide		0.010	Not Detected
Methane		0.00010	Not Detected
Carbon Dioxide		0.010	Not Detected
Ethane		0.0010	Not Detected
Ethene		0.0010	Not Detected

Container Type: NA - Not Applicable



Client Sample ID: Lab Blank Lab ID#: 0910195C-12B

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9101702b	Date of Collect	ction: NA
Dil. Factor:	1.00	Date of Analysis: 10/16/09 11:51 PM	
		Rpt. Limit	Amount
Compound		(%)	(%)
Helium		0.050	Not Detected

Container Type: NA - Not Applicable



Client Sample ID: LCS Lab ID#: 0910195C-13A

NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946

File Name:	9101726	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 10/17/09 03:28 PM

Compound	%Recovery
Oxygen	100
Nitrogen	100
Carbon Monoxide	102
Methane	100
Carbon Dioxide	100
Ethane	99
Ethene	99
Helium	104

Container Type: NA - Not Applicable